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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A process for producing acrylic acid, comprising the steps of:

a) vaporizing a raw material comprising an aqueous glycerol solution to generate a first gas, wherein said aqueous glycerol solution has a water content of not more than ~~50%~~ 20% by weight;

b) applying a dehydration reaction to glycerol in a gas phase that includes said first gas; and then

c) applying a gas phase oxidation reaction to a gaseous reaction product formed by the dehydration reaction to obtain said acrylic acid.

2. (canceled).

3. (previously presented) The process for producing acrylic acid according to claim 1, wherein the dehydration reaction and the gas phase oxidation reaction are conducted in a tandem-type reactor.

4. (previously presented) The process for producing acrylic acid according to claim 3, wherein oxygen is added to a gas which is transferred from the dehydration reaction to the gas phase oxidation reaction.

5. (previously presented) The process for producing acrylic acid according to claim 1, wherein the dehydration reaction and the gas phase oxidation reaction are conducted

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in a single-type reactor.

6. (previously presented) The process for producing acrylic acid according to claim 1, and further comprising the steps of:

a) adding an inert gas to the first gas to obtain a resultant mixed gas, wherein the inert gas is selected from the group consisting of nitrogen gas, carbon dioxide gas and rare gas; and

b) controlling a concentration of said inert gas in said resultant mixed gas to a concentration of not less than 50% by volume.